

A.B.E. Radiation Measurements Laboratory

Division of Health Physics Associates, Inc.

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September 29, 2025

Andrew Mather
Director of Support Services
Southern Lehigh School District
5775 Main Street
Center Valley, PA 18034

re: **Radon Sampling**, Retest: Southern Lehigh High School,
5800 Main St., Center Valley, PA 18034.
Date of test: September 22 to 24, 2025
Test Placed & Retrieved by: Jeanette Steber, ID 8834
Invoice #: 8374

Dear Mr. Mather:

The following is a report of the radon sampling conducted at the referenced school building. Radon sampling was performed over a 2-day period using activated charcoal manufactured by F & J, model RA40V, following US EPA screening test protocols. The charcoal analysis and testing procedures have passed the US EPA's Radon Measurement Proficiency Testing program and A.B.E. Radiation Measurements Lab is certified by the PA DEP for radon testing and radon laboratory analyses (certification numbers 0048 and 0050). Our last quality assurance spikes required by the PA DEP, which were sent to an approved DEP chamber showed a percent deviation of 5.2 %; May 17 to 19, 2025.

The attached table lists each sample location and the net radon concentrations in picocuries per liter (pCi/l). The term "picocuries per liter" is a measure of the radon gas concentration in the air. Proper screening testing in schools should be conducted under conditions simulating those occurring during normal occupied hours. However, ABE Radiation Measurements Laboratory has no control over the degree of ventilation in a building during the test or how the charcoal is treated in our absence.

All structures will contain some radon. Typically, ground and sub-ground level floors will have the highest levels in a multi-story building. Indoor concentrations will depend on the amount of radon seepage into the building and the air exchange rate of the ventilation system. Radon seepage into a building is variable, depending on atmospheric and indoor environmental conditions. Thus, indoor radon concentrations can fluctuate from day to day and over a 24-hour period. When samples are taken for a short time period, it is difficult to know if they represent the average or a high or low point in the range of fluctuation. However, the closed condition and the requirement of at least 25% fresh make-up air in school buildings generally results in short term tests being reasonably close to the annual average provided the wind and barometric pressure at the time of the test was reasonably average and that the HVAC system(s) were/was operated in an "occupied mode", and the windows were kept closed.

While the PA DEP and the US EPA do not have actual regulations limiting the amount of radon in schools, OSHA does have regulations (29 CFR 1910.1096(c)(1) setting occupational limits for radon in facilities in which they have regulatory authority. This is generally any facility having more than 10 employees; the limit is excessively high: 100 pCi/l. However, OSHA has a limit of 3 pCi/l (29 CFR 1910.1096(c)(2) if employees are under 18 years of age. In a school, this likely does not apply to students.

The US EPA and the PA DEP do suggest the guideline of 4 picocuries per liter (pCi/l) as the lower limit of its Remedial Action Guideline and recommend that radon concentrations of 4 pCi/l and above be reduced as far below this level as practicable. It should be noted that this guideline is based on a 75 percent occupancy rate. Thus, there is typically a lower total dose potential for schools, compared to residences for the same air concentrations because of lower occupancy times. However, because of public concern over radon and the fact that staff and students may have elevated radon levels in their homes, the school administration may want to follow the 4.0 pCi/l guideline used for private homes.

Radon is the second leading cause of lung cancer, after smoking. The U.S. EPA and the Surgeon General strongly recommend taking further action when the radon test results are 4.0 pCi/l or greater. The national average indoor radon level is about 1.3 pCi/l. The higher the radon level the greater the health risk. Even buildings with very high radon levels can usually be reduced below 4.0 pCi/l. For further information about reducing elevated radon levels please refer to the "Pennsylvania's Consumer's Guide to Radon Reduction."

CONCLUSIONS

There is no radon reduction system in the building.

The retest showed a marked improvement in the radon concentration in the Band/Piano Room; however, the Health Room 313 was essentially unchanged. Since this is a routinely occupied area, remedial action should be considered. A certified radon mitigation specialist should be able to recommend a suitable remedial method.

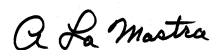
No tampering or deviation from required test conditions has been observed.

Because of the variability of indoor radon air concentrations over the course of a year, follow-up bi-annual testing is recommended to better estimate the annual average air concentrations.

The results of this test are valid only for the date, time and conditions under which the test was conducted and only for the client ordering the test. Should you wish to discuss additional testing or this report, please do not hesitate to contact us at (610) 756-4153.

Thank you for the opportunity to serve you.

Sincerely,



A. LaMastra
Certified Health Physicist

A.B.E. RADIATION MEASUREMENTS LABORATORY

RADON TESTING RESULTS

Southern Lehigh High School
5800 Main Street
Center Valley, PA 18034

Test dates: September 22 to 24, 2025
Retest

Canister Number	Location	Start Time	End Time	pCi/l	Duplicate Average
1st Floor					
198460	Band/Piano Room	09:35	09:31	1.4	
198461	Blank	N/A	N/A	<0.5	
198462	Health 313	09:40	09:34	5.0	
198463	313 (duplicate)	09:40	09:34	5.0	5.0